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ON

Sea Sickness

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ON

SEA-SICKNESS.

BY

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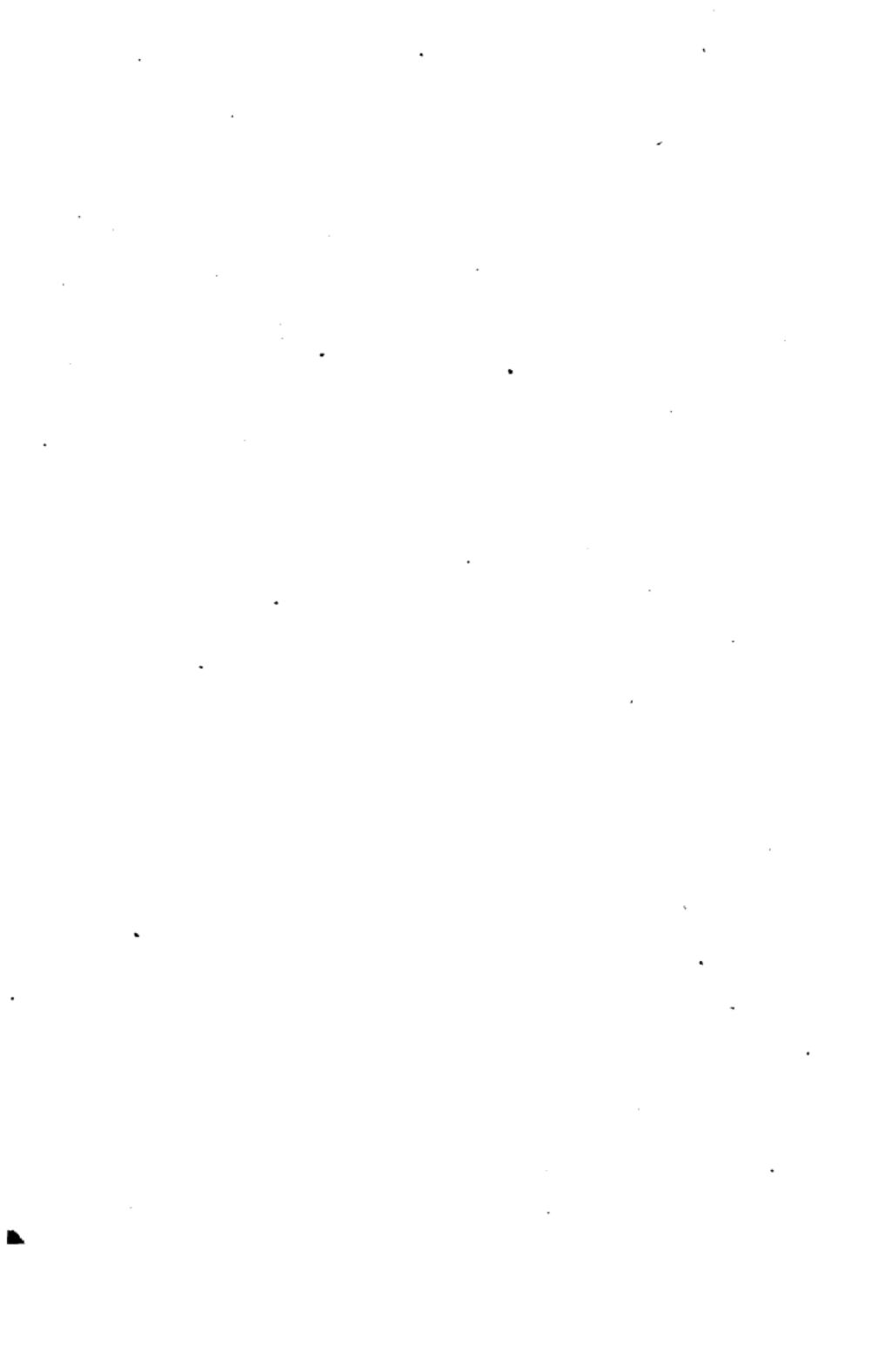
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PUBLISHERS' NOTICE.

THE following paper first appeared in the NEW YORK MEDICAL JOURNAL of November, 1868. As there has been a great demand for this number of the Journal, the publishers have requested the author to add such prescriptions as he has found useful in relieving the suffering from sea-sickness, and now offer the paper in the present form.

NEW YORK, June, 1870.

M345663



ON SEA-SICKNESS.

If we consider the number of persons who, either for pleasure or business purposes, cross the Atlantic, the many constantly going to and returning from California and other parts of the Pacific coast—if we estimate the number on the steamers which run between our Northern and our Southern ports on the Atlantic coast, and on our Western lakes, I think the statement will readily be accepted, that there are few maladies which produce such an aggregate of human suffering as sea-sickness. And yet it may be said, that there is no malady which the medical profession has done so little to relieve, and none for which it is so seldom consulted.

There are several popular errors in regard to this malady, which are current with the profession as well as with the public, and which account, in some measure, for the statement just made. For example, I find the belief very general—

1. That sea-sickness is often beneficial, and that it is never permanently injurious. Now, I have never been able to convince myself that any one was really benefited by the sea-sickness, but the improvement in health from a sea-voyage is, as a general rule, proportioned to the freedom from sea-sickness. I have known many persons who have taken a sea-voyage for health, and, believing that the benefit they were to receive from the voyage would be in a ratio with the amount of bile vomited, they have been greatly disappointed because they were not sea-sick. In many instances I have known serious and permanent injury to result from sea-sickness. A gentleman in this city, whose business as an importer obliged him

to visit Europe every spring and autumn, has been completely broken down from the effects of a ten days' sea-sickness four times a year. After the violent sickness and vomiting have ceased, because of the arrival on land, the stomach has remained greatly disordered, and a long time has been required for the restoration of its tone and digestive power. My advice has been frequently given in strong and decided terms, to those of depressed vital powers, with impaired and feeble digestion, whose past experience has demonstrated an innate liability to sea-sickness, to avoid the exposure to such a hazard.

Some twenty-five years since, I crossed the Atlantic in the packet-ship St. Nicholas. We were eighteen days from Sandy Hook to Havre, having two or three days of severe weather, but, on the whole, a very pleasant passage. One very corpulent gentleman, who was in perfect health when we left the Hook, was incessantly sick during the whole

passage. He was wholly unable to retain any thing except the smallest bit of sea-biscuit, soaked in wine or brandy; and I do not believe that, during the whole voyage, the aggregate of all he swallowed would amount to a half-dozen sea-biscuits. It may well be supposed that, on our arrival a Havre, he was extremely prostrated and excessively emaciated. I was called up to see him, the second night after landing, as he was delirious and had attempted to commit suicide. It was many days before he recovered the capacity for retaining and digesting food. While crossing the Atlantic in 1861, I was asked by the surgeon of the steamer to see a gentleman whom sea-sickness had reduced to a most dangerous state of prostration and exhaustion. This gentleman was obliged to remain in Liverpool two weeks before he sufficiently recovered from the effects of the sickness to be able to leave for London.

2. Another popular error is, that sea-

sickness is never dangerous to life. It does not often result fatally, but I suspect that the number of deaths from this cause is greater than is generally supposed, for three have occurred within my personal knowledge. The first was a young physician, of decided talent and promise, who had at one time been a pupil of mine. Feeling himself somewhat run down by overwork, he thought to improve his health by taking a vacation of a few weeks in an excursion to the fishing-banks of Newfoundland. He was absent nearly four weeks, during which time he was absolutely unable to retain any thing on his stomach, and he died, delirious and exhausted from starvation, two days after landing. The second case was a young lady, who was to have been married immediately after her arrival here, but who died on the passage between Havre and New York. Dr. A. H. Smith, the surgeon of the steamer, told me that he could find no other cause for death than the exhaustion

from sea-sickness. The third case, which I saw in consultation with the late Dr. Pratt of this city, was a young man twenty-two years of age, represented to have been perfectly healthy, who, in a rough passage of sixteen days from Liverpool, had been wholly unable to retain any thing on his stomach. This condition continued after landing, and he died on the fourth day after his arrival. Dr. Pratt, who had a very large hotel practice, told me at this time that he had known of three other deaths from this cause.

3. The belief is very general, both in and out of the profession, that the medical art is powerless for the mitigation, relief, or cure of this malady. It is true that there are no specific drugs which will cure or even prevent sea-sickness. It is often and truly said, that the land is the only cure; but I believe that every physician ought to be competent to give such good, sensible advice as will greatly contribute to diminish the tendency to this mal-

ON SEA-SICKNESS.

ady, and to mitigate and relieve the sufferings and evil resulting from it. Having crossed the Atlantic many times, and, of course, having experienced all sorts of weather, from the most perfect calm to the most violent storm, not only on the Atlantic, but on the Mediterranean and the English and Irish Channels, I have had the opportunity of studying sea-sickness in all its different phases. Being myself exempt from the slightest tendency to this affliction, but, on the contrary, feeling at sea, particularly when it is somewhat rough, an exhilaration of mind and an elasticity and vigor of body which I do not feel on shore, I have been in the best possible condition for studying the disease objectively. I am not sure that it can be called a disease, in the proper sense of the word, for the phenomena constituting sea-sickness are purely physical. It is not confined to the human race, as animals also are subject to the same malady. I have often noticed, with great

SEA-SICKNESS.

its effect on dogs, and that during rough weather they intuitively seek the centre of the ship. The same law of individual susceptibility and exemption from this affection exists in animals as in the human race. In returning from Newport, a few years ago, the sea was very rough in coming round Point Judith. My coachman came to me in great trouble, telling me that one of my horses was dying. I found the horse lying down, wet with a cold sweat, and groaning piteously. As he was perfectly well before leaving Newport, and lively enough after we landed here, it was evident that his whole suffering was due to sea-sickness. The other horse did not seem to be disturbed in the slightest degree.

I am unable to say to what extent the feathered race are susceptible to this malady, but I once had the opportunity of observing, on the Mediterranean, that fowls are not exempt "from the ills that flesh is heir to." One beautiful morning in June I

was on a small steamer going from Leghorn to Genoa. There was a short, chopping sea, very trying for those of delicate susceptibilities, and I was the only passenger up and on deck. I observed on the forward-deck, near the bow, a coop, containing fifteen or twenty hens and two cocks, in watching which I became greatly interested and intensely amused. Most of the hens exhibited unmistakable evidence that they were neither comfortable nor happy. One of the cocks stood, balancing himself with difficulty, with head, tail, and wings drooping, and winking with a decidedly sea-sick expression. While watching him with sympathy, his fellow gave an exultant crow, and immediately received from his mate a spiteful peck on his comb. A few moments after the crow was repeated, but this time his sick mate could only express his disgust and reproach by languid winks. I had the curiosity to watch the coop after it was landed, and found all the inmates restored to their normal liveliness.

Sea-sickness is manifested by a great diversity of symptoms in different individuals. Some suffer only from headache and a constant feeling of stricture across the forehead and over the temples, during the whole voyage, while they are free from nausea and vomiting. Others do not suffer much from nausea, but are suddenly seized with vomiting, and, after the contents of the stomach are discharged, they are free from all unpleasant sensations until the next recurrence of vomiting. With many, the nausea and vomiting entirely disappear after being at sea for a few days. Others again are so unfortunate as to suffer from all these symptoms during the whole time they are at sea, whether the voyage be short or long. There are some who never can become habituated to the sea. I have been told by some naval officers, that they were always sick in rough weather, and I know that this is the case with two captains of Atlantic steamers. With some the suffering produced by sea-

sickness can hardly be painted by words. I am sure that no personal inducement would be strong enough to tempt me to cross the Atlantic, if I were obliged to endure the terrible suffering that I have witnessed in most voyages that I have made. There is often a great change in the same individual, in the course of life, as to the susceptibility to this malady. Some, who in early life have been martyrs to sea-sickness, have ceased to be so as they have grown older; while others, who have been so exempt from this liability that they have been accustomed to regard it as an affection which can be overcome by the exercise of a strong will, have themselves become most craven sufferers and pitiable victims. And yet it is curious that strong mental emotions, as apprehension, terror, fright, will suddenly and completely cure the most violent sea-sickness. It is often true, as is said in "Don Juan," that

"fright cured the qualms
Of all the luckless landsmen's sea-sick maws."

I do not purpose at this time to discuss the great variety of theories that have been suggested in explanation of the cause of seasickness. I will only observe that it seems to be due to the sudden and recurring changes of the relations of the fluids to the solids of the body, and the nervous disturbances which result from these changes. The liquids contained in their vessels, as well as the solids of the economy, obey equally the laws of gravitation, when the body is subjected to alternate movements of ascent and descent like those which are caused by the swing or by the waves of the sea. The blood, by its fluidity, yields more readily to the influence of descent, and less easily than the solids to the ascending impulse. Consequently, it does not return to the brain with the same regularity as in the case where the body remains stable, and leaves it more rapidly in the movement of descent. There result, as to the circulation, alternations of afflux and delay in the arrival of

the blood to the different organs of the body, which disturb their functions, and those of the brain especially, analogous to that which follows the loss of blood, in some persons who are nauseated and vomit after venesection. This disturbance of function is more or less pronounced according to the susceptibility of each individual, and in most persons it is overcome in a great measure by a habitude to a repetition of the causes. No sensible physician would therefore expect to cure sea-sickness by medication addressed to the stomach, or even by drugs which are supposed to act directly on the brain and its functions. The horizontal position, which, to a certain degree, modifies this disturbance of function, is the only approximation to a cure. It, however, does not follow that nothing can be done to prevent or at least diminish these functional disturbances, and to relieve or restore the system from their results.

To this end, it is of first importance that

all the conditions which tend to increase the intensity and severity of the sickness should be thoroughly appreciated. I will mention some of the most common and prominent of these conditions:

1. An exhausted or depressed state of the nervous system, the consequence often of loss of sleep, want of food, excitement, or emotional causes, and bad air. I have observed that a large proportion of persons come on board the Atlantic steamers fatigued and exhausted by their preparations for the voyage. They have passed a large part of the previous night in superintending the packing of their trunks and in arranging their affairs for an absence from home, or they have been travelling night and day to reach the point of embarkation, or have badly slept in an ill-ventilated and strange room in a hotel. Then there is the excitement arising from separation from family and friends, and the vague, undefined apprehension as to the perils of the sea. Of

course, such persons have had no appetite, and have badly digested the little they have eaten.

2. Thus badly prepared to resist the effects of sea-sickness, they speedily bring it on by keeping up and staying on deck. They have an indistinct idea that it is a kind of moral weakness, which they may conquer by boldly doing the very things to bring it on. If they have had a previous experience of the malady, it is not strange that they should dread to be "cabined, cribbed, confined" in their badly-ventilated berths.

3. In many the digestive organs have been irritated by their previous habits of living, or by the action of cathartic medicines which have been taken as a supposed prophylactic against the sickness. I do not mean to say that those whose digestive functions are feeble and imperfect are more liable to sea-sickness than others; but, if the constitutional susceptibility to this affection exists, they are less capable of resisting

its effects, they suffer more, and their recovery is much more tedious. Then, again, because bile-vomiting is the result, bile is supposed to be the cause of the sickness. "I expect to be sick, because I am bilious," or "I am never sick, except when I am bilious," are remarks which I often hear. But, in reality, the bile has as little to do with the sea-sickness as it has with the evil consequences to a child of a fall down-stairs. In both the bile-vomiting is not a cause, but a consequence, of the cerebral perturbation. And so I think it a great mistake to take cholagogue cathartics as a preparation for a voyage, as any thing that irritates or disturbs the functions of the system weakens the power of resistance to the constitutional susceptibility.

I will briefly allude to some other points in connection with this subject. It is a very prevalent error that one never "takes cold" at sea. The fact is quite the reverse, and the exposure to the causes of cold is ob-

viously greater at sea than on land. My own experience is, that it is very difficult to get rid of a cold when at sea.

I am often consulted in regard to the effects of a sea-voyage and sea-sickness on menstruation and pregnancy. In former times, when emigrants came over to this country in packet-ships, having a voyage of from thirty to sixty days, amenorrhœa was a very frequent result, but I think that this was due rather to the bad hygienic conditions of the voyage, the bad air, and the poor and insufficient food of those crowded in the steerage, than to any special influence resulting from sea-air or sea-sickness. I am told that it is much less common in this class, now that they generally have much better accommodations and much shorter passages in the steamers. But I believe that the function of menstruation is generally more or less disturbed. From my investigations on this subject, I am led to regard the law to be, subject, of course, to

numerous exceptions, as follows: When the voyage is commenced near an approaching period, it is brought on two or three days earlier, and the flow is more abundant, than ordinary. But when the voyage is commenced in the first half of the interval after a period, the next appearance is retarded and sometimes suppressed for one or two periods. I am often consulted, both directly and by letter, as to the safety of a voyage during pregnancy. Judging from what has been told me by patients, I should infer that French physicians generally, and many of the English, regard it as highly perilous. Now, the same causes at sea as on land will produce miscarriage, but I have never known of a case of abortion from seasickness. I have, however, interrogated many surgeons of steamers in regard to this point, and find that occasionally abortion is induced in pregnant women from seasickness. I have known several who were always sea-sick when not pregnant, and

who were entirely exempt from it in a rough passage across the Atlantic during pregnancy. My advice was sought for by a lady in Paris, who had four times suffered severely from the sickness of pregnancy up to the end of the fifth month, and who was excessively sea-sick during the whole voyage over to Europe. She was, at this time, in the third month of her fifth pregnancy, and very weak from constant nausea, vomiting, vertigo, and nervous irritability. Imperative family reasons required her return to this city, but her physicians had told her that it was out of the question for her to attempt it. But she returned in the same steamer with myself. On the second day out, all sickness disappeared, her appetite returned, and she arrived here in a very much better condition than when she left Paris.

I will now offer a few suggestions in regard to the prevention and management of sea-sickness, and the treatment of its re-

sults. In short passages, as on our lakes, and across the English or Irish Channel, all that can be done is by way of prevention. Those liable to be sick should make a good hearty meal not more than two or three hours before going on board. They should select a spot as near as possible to the centre of the vessel, and lie down before she gets under weigh. The horizontal position should be rigidly kept during the whole passage. Any attempt to raise the head or to stand erect will be sure, with the susceptible, to be followed by an explosion, and then the case is hopeless for the remainder of the passage. The person should be well covered, not only to protect from cold, but to shield from disagreeable sounds, sights, and smells. On the packets on the English Channel I should advise one not to go down into the cabins below, where the sight of those lying round, with basins by their heads, is of itself exceedingly provocative to a sensitive stomach, but rather to

secure, by telegraphing beforehand, one of the little cabins on deck. Although the passage may not be more than an hour and a half or two hours, I have often seen the neglect of the above suggestions to be followed by very severe punishment.

For ocean passages one of the most essential points is the selection of the state-room as regards position, light, size, and ventilation. Of course, the nearer the room is to the centre of the ship, the less will be the motion. In going to Europe, it is better to be on the starboard side, and in returning, on the port side, which will be the sunny side. Rooms near the furnaces are objectionable, not only on account of the heat, which is sometimes very disagreeable, but also from the noise, which, at certain hours, is made by the donkey-engine in drawing up the ashes and cinders, and which is very trying to those of sensitive nerves. In screw-steamers, the inside rooms, as they are called, if of good size, are often

to be preferred to the outside ones, on account of ventilation, as there is very little weather, except in remarkable summer passages, when the port-holes can be kept open, while the windows of the inside room open on deck, and can generally be kept open. As the air draws down the gangway, the nearer the gangway the better the ventilation.

The following suggestions for the prevention of sea-sickness were first written out some years ago for a gentleman whose business required him to cross the Atlantic often, and who was always kept in his room by severe sea-sickness during the whole voyage. By implicitly following the directions given, he has suffered very little from sickness, and has been able to go on deck by the second or third day, and has been entirely exempt from sickness for the remainder of the voyage. They have since been copied many times, and their value thoroughly tested. The trouble, however,

is, that most persons do not appreciate how much easier it is to prevent sea-sickness than to cure it; and so, none but those who have before suffered will thoroughly carry out the directions, and, neglecting some of them, are disappointed in the results:

1. Have every preparation made at least twenty-four hours before starting, so that the system may not be exhausted by over-work and want of sleep. This direction is particularly important for ladies.
2. Eat as hearty a meal as possible before going on board.
3. Go on board sufficiently early to arrange such things as may be wanted for the first day or two, so that they may be easy of access; then undress and go to bed, before the vessel gets under weigh. The neglect of this rule, by those who are liable to sea-sickness, is sure to be regretted.
4. Eat regularly and heartily, but without raising the head for at least one or two days. In this way, the habit of digestion

is kept up, the strength is preserved, while the system becomes accustomed to the constant change of equilibrium.

5. On the first night out, take some mild laxative pills, as, for example, two or three of the compound rhubarb pills, and be careful to keep the bowels open the remainder of the voyage.

Most persons have a tendency to become constipated at sea, although diarrhoea occurs in a certain percentage. Constipation not only results from sea-sickness, but in turn aggravates it. The reason has already been given why cathartics should not be taken before starting. The effervescing laxatives, like the Seidlitz, or the solution of the citrate of magnesia, taken in the morning on an empty stomach, are bad in sea-sickness.

6. After having become so far habituated to the sea as to be able to take your meals at the table and to go on deck, never think of rising in the morning until you have eaten something, as a plate of oatmeal

porridge, or a cup of coffee or tea, with sea-biscuit or toast.

7. If subsequently, during the voyage, the sea should become unusually rough, go to bed before getting sick. It is foolish to dare any thing, when there is no glory to be won, and *something* may be lost.

ON all the Atlantic steamers in which I have crossed, I have found the surgeons to be educated, intelligent, and thoroughly competent men. On the English and American, I can say this with great confidence; but, on the German and French steamers, I have not made the acquaintance of the surgeon sufficiently to express so decided an opinion. I presume, however, that the same confidence may be placed in them. But the owners of these ships only furnish such medicines as are absolutely essential, and, there being very little opportunity on board

of a steamer for pharmaceutical preparation, the surgeon, in prescribing, must necessarily have but little regard for the taste, comfort, and idiosyncrasies of those who are sick. Besides, great comfort is attained in having a remedy immediately accessible, as the patient otherwise might be obliged to wait for hours, because the surgeon is engaged with a fractured limb of a sailor, or a fireman, or some other passenger, who has secured his attendance. Then on the Channel and the Mediterranean steamers there are no surgeons, and seldom are any medicines kept on board. I therefore append a few prescriptions, which may be found useful by those who, in previous voyages, have suffered severely from sea-sickness, and by those who make the experiment for the first time. From the preceding pages, it will be seen that I entertain strong convictions that much may be done to prevent sea-sickness, but that I have no great confidence in any medicinal

agents to cure this disease. Since the publication of this paper, I have received many letters of inquiry in regard to the value of Dr. Chapman's ice-bags, as a means of preventing and relieving the suffering from sea-sickness. I therefore feel impelled to say that some years since I carefully studied the papers which have been written by Dr. Chapman on this subject, as also the article in the *Westminster Review*—that the physiological doctrines on which Dr. Chapman bases his practice are, in many essential points, in opposition to the opinions of the most advanced physiologists of the present day—and that in crossing the English Channel and the Atlantic Ocean I have, in several instances, seen the ice-bags thoroughly tried in cases of sea-sickness, without good results. I have also been particularly struck with the fact that those who have sufficiently convalesced from the sickness to get on deck, have instinctively sought the position by which their backs

would be nearest in contact with the warm smoke-stacks, and have apparently found comfort in so doing. The author is aware that several cases have been reported, in which the ice-bags have apparently been of great service, but none such have occurred under his own observation.

The few prescriptions which I add are those which I have found useful in relieving symptoms, and may be conveniently carried:

LAXATIVE PILLS.

B.	Pulv. Rhei. (Turk.),	3 ss.
	Ext. Hyoscyami,	3j.
	Pulv. Aloes Soc.,	
	Sapo Cast.,	aa gr. xv.
	Ext. Nux Vomicae Alcoh.,	gr. x.
	Podophylin p.,	gr. v.
	Ipecac.,	gr. ij.
M.	ft. pil, (argent) No. 20.	
S.	Dose—one, two, or three.	

For most persons two pills will be sufficient to take the first night at sea, and after-

ward, when a laxative is necessary, one is ordinarily all that will be required.

In some, while at sea, there is a tendency to diarrhœa instead of constipation, and the following will be found a useful medicine in controlling this symptom. It may also be found of service when travelling on land and exposed to the ills which result from change of diet, bad water, etc. The dose given is for an adult. For a child, one year old, ten drops; two years, fifteen drops, and so on. The medicine may be put up wherever an English druggist (or chemist as he is called in Europe) is found, as in most of the large towns on the Continent:

R. Tinct. Camphoræ, 3 vj.

Tinct. Capsici, 3 ij.

Spts. Lavendul. Comp.,

Tinct. Opii, $\frac{aa}{3}$ ss.

Syr. Simp., $\frac{3}{2}$ ij.

M. S. A small teaspoonful in a wineglass of water after each movement.

In cases where the sickness has been prolonged for several days, the patient suffering from constant nausea, great nervous depression, and sleeplessness, I have found great benefit from the following powders:

B. Potass. Bromide, $\frac{2}{3}$ j.
Div. in Chart No. 20.
S. One two or three times a day.

These powders are best taken in a half-tumbler of carbonic-acid water (ordinarily called soda-water), or, if this cannot be obtained, in a half-tumbler of iced sugar-and-water. This should be sipped down slowly, so that the stomach may be persuaded to retain and absorb it. I have often known one powder, taken at bedtime, secure a night of good refreshing sleep. The powders should be kept in a tin box, or in a wide-mouthed phial.

Those who are confined to their berths for several days often suffer from local pains, cramps, "stitches in the sides," and some-

times colics. These pains are often relieved by the use of the following liniment, which is to be applied (not by rubbing), but by thoroughly saturating a double thickness of flannel, and laying it directly over the seat of pain, and then covering the flannel with the clothing to prevent evaporation. The liniment at first causes a sensation of coldness, then of great heat, and soon after it gives a feeling of great relief. The flannel may again be wet with the liniment, as often as may be necessary, avoiding such a continued use as to cause a blister:

R. Lint. Sapo Comp., $\frac{2}{3}$ vj.
Chloroform, $\frac{2}{3}$ j.
M. S. Chloroform Liniment.

Counter-irritation over the pit of the stomach, is often very serviceable in relieving the nausea and vomiting, and so it is well for those who are about to make a voyage, to provide themselves with the article, now generally kept by druggists, and known

as "mustard-leaves." Any size required can be cut off, and, by simply wetting it, a mustard-plaster is ready at once.

I would strongly recommend those liable to sea-sickness to provide themselves with the above prescriptions, as they may give very considerable comfort and relief, at a very trifling expense.

THE END.



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